IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

BAKER HUGHES INCORPORATED and BAKER PETROLITE CORPORATION	§	
	§	CIVIL ACTION NO. 4:09-cv-01885
Plaintiffs,	§	
v.	§	
NALCO COMPANY	§	JURY TRIAL DEMANDED
Defendant.	§	

PLAINTIFFS' REPLY TO DEFENDANT NALCO COMPANY'S RESPONSE TO PLAINTIFFS' APPLICATION FOR PRELIMINARY INJUNCTION

John H. Barr, Jr.
Attorney-in-Charge
State Bar No. 00783605
Glenn A. Ballard, Jr.
State Bar No. 01650200
Christopher A. Shield
State Bar No. 24046833
Andrew W. Zeve
State Bar No. 24042209

Bracewell & Giuliani LLP
711 Louisiana, Suite 2300
Houston, Texas 77002
(713) 223-2300 - Telephone
(713) 221-1212 - Facsimile

ATTORNEYS FOR PLAINTIFF BAKER HUGHES INCORPORATED and BAKER PETROLITE CORPORATION

Page

TABLE OF CONTENTS

TABLE OF AUTHORITIES

PAGE

Cases

TABLE OF AUTHORITIES CONTINUED

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Plaintiffs Baker Hughes Incorporated ("Baker Hughes") and Baker Petrolite Corporation ("Baker Petrolite") (collectively "Baker" or "Plaintiffs") file this Reply to Defendant Nalco Company's ("Nalco" or "Defendant") Response ("Response") to Plaintiffs' Application for Preliminary Injunction ("Motion").

I. SUMMARY OF THE ARGUMENT

1. In an effort to manufacture a substantial question of infringement or validity, Defendant's Response is long on rhetoric but short on substance. First, Defendant improperly urges that the Court construe the claims of U.S. Patent No. 7,497,943 ("the '943 patent" or "Baker Patented Method") one way for issues of infringement, and another way for issues of validity thereby demonstrating the weakness of all of its arguments. Defendant further proposes constructions for five claim terms, but offers no support for either the constructions, the need for constructions, or for why there is any real dispute on the meaning of the claim terms. Most importantly, Defendant admits performing the claimed method steps of the '943 patent, and its argument that the "additional" steps it performs distinguish it from Baker's Patented Method fails, because those "additional" steps are all steps performed in a standard commercial desalting

process or claimed by the '943 patent. Baker's Patented Method includes all of these "additional" steps as well since the '943 patent specifically refers to practicing Baker's Patented Method "in a refinery desalting process." Thus, Defendant fails to raise any question of non-infringement.

2. Defendant incorrectly alleges that the '943 patent is invalid based on three pieces of prior art that have already been reviewed and not applied by the United States Patent Office ("USPTO") to reject any claim during prosecution of the '943 patent application. These three references alone or in combination with four additional prior art references identified by Defendant fail to overcome the presumption of an issued patent's validity, and do not raise a substantial question of validity. Indeed, the four additional prior art references are completely inapposite, and Defendant never explains how prior art related to (1) treating gasoline to remove metals, (2) adding amines to crude oil, (3) adding of an organic solvent to crude oil, and/or (4) a general petroleum reference book suggest or even hint that the '943 patent is invalid. Moreover, the prior art cited by Defendants, alone or in combination, teaches away from at least the claimed method steps of the '943 patent of creating an emulsion, lowering the pH, and/or using electrostatic coalescence to demulsify an oil-water emulsion in a refinery desalting process. Defendant's Response simply does not raise any question, let alone a substantial question, of non-infringement or invalidity. Therefore, Baker is likely to succeed on the merits at trial.

3. Defendant further admits that it is a competitor of Baker, and its actions will result in a loss by Baker of 50 to 100 percent of the market for products and services related to the Baker Patented Method ("the Market"). Clearly, this substantial loss of market share would necessarily result in a loss of the goodwill Baker has built up, since it developed the Market over the last five years based on the Baker Patented Method. The pricing established by Baker would also be eroded, and Baker would have no way of accurately determining what the Market would

have become but for Nalco's infringement. The loss of market share, good will, and price erosion are all factors that have been found to cause irreparable harm in the case law. Thus, if Nalco is not enjoined Baker will be immediately and irreparably harmed as Nalco stands to take most, if not all, of the Market in September of 2009. Finally, the balance of hardships and the public interest favor protecting Baker and its patent rights. In short, nothing in Defendants' response would prevent the grant of Baker's application for injunctive relief.

II. NALCO DOES NOT DISPUTE THE FACTUAL BACKGROUND

4. Nalco's response does not dispute the factual background of this lawsuit regarding the nature of the problem solved by the '943 patent, or Baker's development, testing and implementation of the Baker Patented Method. Nalco does not dispute that the USPTO's review of the application resulting in the '943 patent ("the '943 patent application) involved 39 pieces of prior art and five and a half years of review by the USPTO.

5. Nalco does not dispute that Nalco has its own patented method, and that Nalco's patented method failed in head-to-head competition with the Baker Patented Method at the Chevron Pembroke Refinery in Wales ("Pembroke Refinery"). Nalco further does not dispute that Nalco's patented method shut down the refinery desalting process at the Pembroke Refinery due to its inability to resolve oil-water emulsions.

6. Nalco does not dispute that it is now using malic acid, which is expressly claimed by the Baker patent, at the Sunoco Refinery in Philadelphia, Pennsylvania ("the Sunoco Refinery"). Nalco does not dispute that Nalco has connected a tank labeled EC2483A in the wash water stream of the desalting process for the refinery ("Nalco's Bulk Chemical Tank"), or that the location that Nalco's Bulk Chemical Tank is connected into the wash water stream is the same location previously used by Baker for performing the Baker Patented Method. Nalco admits that it is injecting a corrosion inhibitor into the wash water stream separate from Nalco's

Bulk Chemical Tank EC2483A. Nalco does not dispute that it has connected a de-emulsifier into the same location that Baker previously used for the injection of its de-emulsifier for performing the Baker Patented Method. Nalco admits that it is adding the malic acid to the wash water, which is then mixed with the crude oil stream in the desalting process. Nalco admits that when the wash water is mixed with the crude oil stream it creates an emulsion. Nalco further admits that it is using a de-emulsifier in conjunction with the electrostatic coalescence of a refinery desalting process to separate the desalted crude oil from the wash water and metals, including calcium. Consequently, the method practiced by Nalco at the Sunoco Refinery is identical in all material respects to the Baker Patented Method and infringes the '943 patent.

7. Additionally, Nalco does not dispute that it has offered to provide its calcium removal method to the Sunoco Refinery for a 35% lower price than Baker charges for the Baker Patented Method.

III. NALCO'S ARGUMENTS ARE CONTRADICTORY

8. Nalco's Response argues one claim construction for non-infringement and a different claim construction for invalidity. It is well settled law, however, that the meaning and scope of the claims of a patent are the same for both infringement and validity. *See, e.g., Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1324 (Fed. Cir. 2006) ("The same claim construction governs for validity determinations as for infringement determinations."). In its non-infringement argument, Nalco correctly states that in patent claim construction the transitional phrase "consisting of" excludes method steps not specified in the claim. *See* MPEP § 2111.03; *Conoco, Inc. v. Energy & Environmental International, L.C.*, 460 F.3d. 1349, 1359-60 (Fed. Cir. 2006) ("consisting of" signifies exclusion of unrecited steps or components "except for impurities ordinarily associated therewith"). Based on the interpretation of the term "consisting of," Nalco argues that it avoids infringement by practicing a method that allegedly includes

additional unclaimed steps. In its invalidity argument, however, Nalco ignores the limitations of the "consisting of" term and alleges that the '943 patent is invalid based on prior art that teaches the use of method steps not specifically claimed by the '943 patent. *See* MPEP § 2111.03. Nalco's contradictory constructions improperly urge the Court to apply different constructions for infringement and validity issues, and demonstrate the weakness of Nalco's arguments.

IV. NALCO IS INFRINGING THE BAKER PATENTED METHOD

9. Nalco admits that it is performing the Baker Patented Method steps, but alleges that Nalco is not infringing Claims 1 and 17 of the '943 patent because (1) Nalco performs three unclaimed method steps, and (2) Nalco does not process "pure crude oil" as purportedly required by the '943 patent (even though no such requirement exists). Def. Resp. at p. 3-4. Nalco's arguments fail because Nalco ignores the claim language that the Baker Patented Method occurs in "a refinery desalting process." Plf. Mtn. Ex. 1 at Col. 18, ll. 62-64. Thus Baker's Patented Method includes all of the steps performed in a refinery desalting process, and these same steps when performed by Nalco are not "additional" steps.

A. No Claim Construction Is Necessary

10. As a threshold matter Nalco alleges that five claim terms need construction.[1] Notably, Nalco seeks to have the Court construe the transitional term "consisting of," which has a specific legal meaning in patent law. *See* MPEP § 2111.03 ("'consisting of' excludes any element, step, or ingredient not specified in the claim").[2] Moreover, Nalco offers no support for either the need to construe the four additional identified claim terms or that the proposed

[1] Nalco alleges that the Court needs to construe the terms: (1) "consisting of;" (2) "wash water;: (3) "crude oil;" (4) "emulsion;" and (5) electrostatic coalescence. Def. Resp. at p. 4-5.

[2] Whether this language is exclusionary or does not matter here because the "additional steps" claimed by Nalco are expressly made part of the claims of the '943 patent and are, thus, part of the Baker Patented Method.

constructions are proper. Indeed, Nalco does not suggest that the '943 patent specification uses the four terms in a manner inconsistent with the understanding of one skilled in the art at the time the patent application was filed. *See Phillips v. AWH Corp*, 415 F.3d 1303, 1368 (Fed. Cir. 2005) (*en banc*) (courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention). There is also no support that the proposed constructions are consistent with the usage of the terms in the '943 patent claims, specification, or file history. *See id.* at 1314 (proper claim construction starts with an analysis of a patent's intrinsic evidence, which forms the public record of a patent and consists of the claim language, the specification, and the prosecution history); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-80 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). Because Nalco offers nothing but conclusory statements for the proposed constructions and the claim terms are readily understood in light of the patent without construction, the Court should reject Nalco's requested constructions. *See Phillips*, 415 F.3d at 1314 (claim terms that can be readily understood by one skilled in the art or a lay juror do not need construction).

B. Baker Patented Method Takes Place In A Commercial Desalting Process

11. In alleging non-infringement based on its allegation that it uses three "additional" steps, Nalco ignores the claim language that Claim 1 of the '943 patent is for "[a] method of transferring metals and/or amines from a hydrocarbon phase to a water phase ***in a refinery desalting process***." Plf. Mtn. Ex. 1 at Col. 18, ll. 62-64 (emphasis added). Indeed, the declarations and exhibits provided in support of Nalco's Response show that (i) adding demulsifiers to crude oil, (ii) heating the crude oil, or (iii) adding corrosion inhibitors are part of a standard refinery desalting process, are not new processes added by Nalco, and do not distinguish what Nalco is doing. *See* Def. Resp. Exs. DX4 and DX10. Furthermore, unlike the

addition of a solvent to the crude oil, Def. Rsp. at 6-7,[3] the prior art cited in Nalco's invalidity argument shows that heating the crude oil and adding a demulsifier are standard elements in refinery desalting processes. Def. Resp. Ex. DX11 at p. 50 (typical operating temperatures for oil in desalting process are between 240°F and 300°F, and oil density is close to the density of water at 138°F); Def. Resp. Ex. DX14 col. 1, ll. 37-41 ("[t]he emulsion is usually resolved with the assistance of emulsion breaking chemicals" ... and by the known method of providing an electrical field to polarize water droplets").

12. Moreover, Claim 17 of the '943 patent specifically claims the addition of the corrosion inhibitor to the wash water. Plf. Mtn. Ex. 1 at Col. 20, ll. 45-49. Thus, to the extent that a corrosion inhibitor is not part of a normal desalting process, it is specifically claimed by the '943 patent. Further, Nalco's argument that the addition of the corrosion inhibitor is an additional method step is nothing but an attempt to manufacture a limitation that does not exist. It is chemically irrelevant if the acid and corrosion inhibitor are premixed and then injected into the wash water together at one location, or are injected at two or more separate locations in the wash water stream. Plf. Mtn., Ex. 4, Weers Aff. ¶9. The resulting mixture of the acid and corrosion inhibitor in the wash water is the same, whether they are added at one or more locations. *Id.* Only after Nalco adds the corrosion inhibitor and acid to the wash water are the wash water, acid and corrosion inhibitor mixed with the crude oil to create an emulsion. The claimed composition of Claim 1 of the '943 patent has the chemicals added to the wash water

[3] As discussed below, Nalco's argument regarding the addition of the solvent does not reflect the prior art cited by the examiner or the arguments made by Baker during the prosecution of the '943 patent application, nor does it mention that the Ohsol patent "covers a thermal process, not a desalting process." *See* Def. Resp. Ex. DX9 at p. 12.

before mixing with the crude oil.[4] Therefore, the number of locations along the wash water stream where acid and corrosion inhibitor are added does not affect the analysis of Nalco's infringement.

C. Standard Commercial Desalting Process Is Not Pre-Treating Crude Oil

13. Nalco's second non-infringement theory holds as little water as its first. Nalco alleges that standard desalting process operations are tantamount to pre-treating the crude, and thus "pure crude" is not part of the method being performed by Nalco, whereas Nalco alleges it is required by the Baker Patented Method. Def. resp. at p. 6-7. Once again however, adding a demulsifier and pre-heating the crude oil are part of a standard desalting process, and part of the methods used by both Baker and Nalco. Def. Resp. Ex. DX11 at p. 50 (typical operating temperatures for oil in desalting process are between 240°F and 300°F, and oil density is close to the density of water at 138°F); Def. Resp. Ex. DX14 col. 1, ll. 37-41 ("[t]he emulsion is usually resolved with the assistance of emulsion breaking chemicals"). By using the standard features of a desalting process neither Baker nor Nalco are adding a solvent or pre-treating the crude oil in any way. Moreover, the '943 patent does not require the use of "pure crude," and, in fact, the term "pure crude" never appears in the '943 patent. Consequently, Nalco is attempting to create a distinction that does not exist. In addition to the arguments above, Nalco is using the same injection point for its demulsifier as Baker was using when Baker was performing the Baker Patented Method at the Sunoco Refinery. Plf. Mtn, Ex. 6, Scott Aff. ¶3.

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[4] Nalco's argument that the corrosion inhibitor does not lower the pH of the wash water is irrelevant. Def. Resp. at p. 6. The claim language states that the pH of the wash water is lowered "to 6 or below, before, during and/or after adding the composition." Plf. Mtn., Ex. 1 at col. 19, ll. 9-10. As discussed above, the composition is not the corrosion inhibitor alone, and Nalco has admitted that the method it is using lowers the pH to below 6. *See* Def. Resp. at p. 3-4.

14. Nalco's entire argument about adding a solvent attempts to distinguish Nalco's actions from the Baker Patented Method based upon a mischaracterization of the prosecution history of the '943 patent application. *See* Def. Resp. Ex. DX9. In the course of prosecution, the examiner cited the Ohsol patent as potentially invalidating prior art, and in a response dated August 15, 2008, Baker pointed out that the Ohsol patent "covers a thermal process, not a desalting process." Def. Resp. Ex. DX9 at p. 12. Thus, in addition to adding a solvent made of hydrocarbons to the crude oil, which neither Nalco nor the Baker Patented Method do, the Ohsol patent does not involve a desalting process as required by the Baker Patented Method. *Id.* at p. 12-15. Moreover, pre-heating crude oil and adding a demulsifier in a desalting process, which is common in refinery desalting processes, are not equivalent to adding solvents or other chemical pre-treatments to the crude oil in a thermal process. Because Nalco is infringing at least claims 1 and 17 of the '943 patent, and no substantial question of non-infringement can be made by Nalco, the Court should grant Baker's requested injunctive relief.

V. THE BAKER PATENTED METHOD IS VALID

15. Nalco requests that the Court ignore both the presumption that an issued patent is valid, 35 U.S.C. § 282, and that the USPTO properly performed its function in reviewing the '943 patent application before issuing it after five and a half years of prosecution, during which time the examiner reviewed 39 pieces of prior art. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 22 F.3d 1299, 1304 (Fed. Cir. 2008) (citation omitted) (patent "examiners … are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art [because their duty] is to issue only valid patents"). Indeed, the Federal Circuit recently reiterated that a "patent enjoys the same presumption of validity during preliminary injunction proceedings as at other stages of litigation." *Titan Tire Corp. v. Case New Holland, Inc.*, 566 F.3d 1372, 1377 (Fed. Cir. 2009). Thus, the burden on Nalco is and remains one of

proving invalidity by clear and convincing evidence. *See, e.g., Technology Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008) (citations omitted).

A. The Examiner Properly Issued the '943 Patent After Reviewing the Reynolds Patents

16. Nalco's primary invalidity argument is based on U.S. Patent No. 4,789,463 issued to John G. Reynolds ("the Reynolds '463 patent"), and/or U.S. Patent Nos. 4,988,433 ("the Reynolds '433 patent") and 4,778,589 ("the Reynolds '589 patent") also issued to Reynolds (collectively "Reynolds patents").[5] Not addressed or even mentioned in Nalco's Response is the fact that all of the Reynolds patents are cited on the face of the '943 patent and the examiner expressly considered them during prosecution of the '943 patent application. Plf. Mtn., Ex. 1 at References Cited. *See PowerOasis*, 522 F.3d at 1304 (when relying on prior art considered by the examiner, a defendant has the "the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job ... and whose duty it is to issue only valid patents"). Moreover, Nalco ignores the fact that the examiner actually reviewed the Reynolds '463 patent as indicated by his initials next to that reference as required by MPEP § 609.01. Plf. Mtn. Ex. 4 at March 26, 2006 INFORMATION DISCLOSURE STATEMENT BY APPLICANT . *See, e.g, Bristol-Myers Squibb Company v. Rhone Poulenc Rorer, Inc, et al,* 356 Fed 3d. 1226, 1235-36 (Fed. Cir. 2003) (the initials of the examiner next to a piece of prior art indicates that the examiner considered the art during prosecution).

17. In the prosecution of the '943 patent application, the examiner not only reviewed the Reynolds '463 patent, but also specifically selected two other Reynolds patents, the Reynolds '433 and '589 patents, instead of the Reynolds '463 patent as the basis for rejecting the '943

[5] Baker would clarify that the inventor of the Reynolds '463 patent, John G. Reynolds an employee of Chevron Research Company ("Chevron"), is a different Reynolds from the Robert W. Reynolds, an employee of Nalco, who provided a declaration in support of Nalco's Response.

patent application. Plf. Mtn. Ex. 4 at May 4, 2007, Office Action; June 17, 2008, Office Action; Def. Resp. Ex. DX15. It is apparent from the examiner's selection of the Reynolds '433 and '589 patents, rather than the Reynolds '463 patent, that the examiner found the other Reynolds patents to be more relevant to the claims of the '943 patent than the disclosure of the Reynolds '463 patent. Nalco has brought forth no evidence or suggestion that the examiner did not properly perform his duties in selecting and arguing the most relevant art while examining the '943 patent application during prosecution, or why the examiner's analysis of the prior art should be ignored. Therefore, Nalco has not carried its burden of proving that the USPTO did not properly issue the '943 patent. *See PowerOasis*, 522 F.3d at 1304.

18. Additionally, the examiner properly rejected the Reynolds '463 patent as a relevant reference upon which to base a rejection of the claims, because it teaches away from the Baker Patented Method.[6] *See KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740 (2007) ("when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious"). First, the Reynolds '463 patent teaches that emulsions are to be avoided in the disclosed Reynolds method, because emulsions "can interfere with the effective separation" of the organometallic metal contaminants in petroleum. Def. Resp. Ex. DX5 at col. 3, ll. 33-37 ("[o]ne difficulty with the addition of base, however, is the formation of emulsions, which can interfere with effective separation" of the oil and water). Consequently, the Reynolds '463 teaches away from the Baker Patented Method,

[6] The Reynolds patents, including the Reynolds '433, '463, and '589 patents, were assigned to Chevron. *See* Exs. DX5 at Assignee; DX6 at Assignee; DX7 at Assignee. Despite being the assignee of the Reynolds patents, Chevron approached Baker seeking a solution for the removal of high concentrations of calcium from crude oil. *See* Plf. Mtn, Ex. 3, Weers Aff. ¶¶4-6. If the Reynolds patents had disclosed the Baker Patented Method, it is only logical that Chevron would have informed Baker of this fact. Chevron, however, has never made this assertion. Indeed, Chevron would not have found it necessary to go to Baker for the solution provided by the Baker Patented Method if the Reynolds patents it already owned provided that solution.

which requires an emulsion. Furthermore, contrary to Nalco's assertions in the Declaration of Robert Reynolds ("Reynolds' Declaration"), who is not the inventor of the Reynolds patents, nowhere in the relevant passages of the Reynolds '463 patent identified by Reynolds' Declaration, or anywhere else in the Reynolds '463 patent, is there any mention of the formation of an emulsion in the method disclosed by the Reynolds '463 patent. *See* Def. Resp. Ex. DX5. The term used by the Reynolds '463 patent is "mixing," and in view of the patent's specific teachings against the formation of emulsions, the Reynolds '463 patent clearly does not intend that the "mixing" step would result in an emulsion. Def. Resp. Ex. DX5 at col. 2, ll. 5-12 ("intimately and thoroughly mixed with an aqueous solution"); col. 3, ll. 33-37 ("formation of emulsions … can interfere with effective separation"); col. 5, ll. 18-21 ("mixtures").

19. The Reynolds '463 patent further never discloses the use of electrostatic coalescence as a method step as required by Claim 1 of the '943 patent. *See* Def. Resp. Ex. DX5. Indeed, the Reynolds' Declaration cites the '943 patent and prosecution history, and not the Reynolds '463 patent, to allege the presence of this method step in the Reynolds '463 patent. Def. Resp. Ex. DX10 at Ex. RR1 at p. 2-4. Still additionally, the Reynolds '463 patent does not teach lowering the pH to 6 or below as required by Claim 1 of the '943 patent. *See* Def. Resp. Ex. DX5. Indeed, the '463 patent indicates that in the Reynolds' method the pH must be raised. *See* Def. Resp. Ex. DX5 at col. 3, ll. 62-66 (the pH of acidic solution of the Reynolds' method is raised with ammonium hydroxide). Because ammonium hydroxide is added to adjust the pH to 5 or above in the '463 patent, the pH is being raised from a lower, more acidic level. Moreover, the addition of ammonium hydroxide to the process claimed in the '943 patent would be counterintuitive to the teachings of the '943 patent for removal of both amines and metal contaminants.

20. Because the Reynolds patents were considered and rejected by the examiner during prosecution, and the Reynolds '463 patent specifically teaches away from the Baker Patented Method, Nalco has not carried is burden to overcome the presumptions of (1) validity and (2) that the USPTO properly performed its duty in only issuing valid patents. *See KSR*, 127 S. Ct. at 1740; *see also* 35 U.S.C. § 282; *PowerOasis*, 22 F.3d at 1304. The Reynolds patents alone or in combination with each other do not disclose Baker Patented Method. Therefore, Nalco has failed to raise a substantial question of validity.

B. The Other Prior Art References Cited By Nalco Teach Away From The Baker Patented Method

21. The remaining prior art references cited by Nalco are similarly deficient whether alone or in combination with the Reynolds' Patents. First, *Petroleum Refining* is merely a general reference that discusses standard desalting process, including the addition of demulsifiers to either the crude or the wash water. Def. Resp. Ex. DX11 at p. 41. Furthermore, there is no disclosure of the use of carboxylic acids for the removal or metals and/or amines, or any mention or reference to pH or controlling pH during the desalting process in *Petroleum Refining*. *See* Def. Resp. Ex. DX11.

22. U.S. Patent 3,449,243 issued to Strong ("the Strong '243 patent") discloses pre-treating crude oil with an organic solvent. *See* Def. Resp. Ex. DX13. Among its non-infringement arguments, Nalco makes the argument that pre-treating the crude oil with a solvent is not covered by the Baker Patented Method.[7] Def. Rsp. at 6-7. Therefore, Nalco's own non-infringement arguments would suggest that the Strong '243 patent does not teach or even suggest the Baker Patented Method. Furthermore, the Strong '243 patent discloses the addition of

[7] Of course, Nalco does not actually pre-treat the crude oil and is merely performing the standard desalting process as previously discussed, *infra*, at 6-9.

carboxylic acid in an alcohol not an aqueous solution, and a pH range that can be above 6. *See* Def. Resp. Ex. DX13.

23. U.S. Patent No. 2,767,123 issued to Hickok ("the Hickok '123 patent") is for the treatment of gasoline not crude oil, and is for metal removal not a desalting process in a refinery. *See* Def. Resp. Ex. DX12. Moreover, the Hickok '123 patent does not disclose any pH range, or the separation of an acid-water phase from either gasoline or crude oil, and requires an oxidation step not present in claims of the '943 patent. *See id.*

24. Finally, U.S. Patent No. 4,992,210 issued to Naeger ("the Naeger '210 patent") teaches a method for removing impurities by the addition, not the removal of, amines to either the crude oil or wash water. *See* Def. Resp. Ex. DX14. Thus, the Naeger '210 patent teaches away from the claimed purpose of the '943 patent, i.e., the removal of metals and amines.

C. <u>The Chemical Arts Are Unpredictable</u>

25. Combining the references identified by Nalco would not teach the Baker Patented Method. As the Federal Circuit has consistently held, the unpredictability of the chemical arts create a difficult hurdle for combining references to allege invalidity, because predictable solutions are not likely. *P&G v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 996 (Fed. Cir. 2009) (citing *Eisai Co. Ltd. v. Dr. Reddy's Labs., Ltd.*, 533 F.3d 1353, 1356-57 (Fed. Cir. 2008) ("[t]o the extent an art is unpredictable, as the chemical arts often are, KSR's focus on [] 'identified, predictable solutions' may present a difficult hurdle because potential solutions are less likely to be genuinely predictable"). Thus, alone or in combination the cited art by Nalco does not teach the method steps of the Baker Patented Method. *See* MPEP § 2111.03; *Conoco*, 460 F.3d. at 1359-60 ("consisting of" signifies exclusion of unrecited steps or components). Therefore, Nalco has not shown invalidity by clear and convincing evidence or even raised a substantial question of validity.

VI. NALCO'S RESPONSE ADMITS BAKER WILL BE IRREPARABLY HARMED

26. Nalco admits that it is a competitor of Baker. Def. Rsp. at 17. *See Acumed LLC v. Stryker Corp.*, 551 F.3d 1323, 1328 (Fed. Cir. 2008) (affirming injunctive relief because an "essential attribute of a patent grant is that it provides a right to exclude competitors from infringing the patent"); *see also Broadcom Corp. v. Qualcom Inc.*, 543 F.3d 683, 703 (Fed. Cir. 2008) (a denial of injunctive relief against an infringing direct competitor amounts to a compulsory license). Nalco admits that there are only two refineries in the United States that use a method for removing high concentrations of calcium from crude oil, and the two refineries are owned by the same company, Sunoco. Def. Rsp. at 17. If Nalco is not enjoined, and Nalco replaces Baker as the provider for the method of removing calcium from crude oil to the Sunoco Refinery, Baker's customer, Baker will lose 50% of its current market share immediately. Moreover, because Sunoco owns the only two refineries in the United States that use the Baker Patented Method, Baker is more likely than not to lose 100% of its market share. *See TiVo Inc. v. EchoStar Communications Corp.* 446 F. Supp. 2d 664, 669 (E.D. Tex. 2006) (reversed, in part, on other grounds in 516 F.3d 1290 (Fed. Cir. 2008)) (irreparable harm existed "because 'the availability of infringing products leads to a loss of market share'").

27. While Nalco alleges that there is no irreparable harm because it is only one customer, Def. Rsp. at 16-17, a loss of 50% to 100% of the existing market in the United States will naturally result in price erosion, and loss of good will with its customer. *See Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1382-83 (Fed. Cir. 2006) (affirming the district courts finding of irreparable harm based, in part, on price erosion and loss of good will). In *Apotex*, Sanofi-Synthelabo initiated litigation after Apotex began selling a generic version of a drug under a settlement agreement that was not approved by regulatory authorities. *Id.* at 1372-73. In the settlement agreement the measure of harm to Sanofi-Synthelabo due to infringing sales was

quantified as 40-50% of Apotex's sales. *Id.* at 1381. Despite being able to quantify the amount of harm that Sanofi-Synthelabo would suffer, the district court issued a preliminary injunction based on the loss of market share, price erosion, and loss of good will due to the sales of the infringing product in the market. *See id.* at 1381-83. Similarly, Baker's potential loss of market share and good will developed over the past five years to a direct competitor infringing the Baker Patented Method, and irreversible price erosion due to infringing sales in the market, cannot be adequately compensated by money damages. *Id.*; *see also Brooktrout Inc. v. Eicon Networks Corp.*, 2007 U.S. Dist. LEXIS 43107, at *3-5 (E.D. Tex. June 14, 2007) (irreparable harm existed where patentee and accused infringer were competitors so infringement caused loss of market share and money damages were not an adequate proxy for injunctive relief).

28. In addition, crude that is high in calcium is always available on the open market, and thus, the Market could expand at any time. If Nalco is allowed to compete with Baker by infringing the Baker Patented Method, Baker's reputation as being the only reliable source for treating high calcium crude will be destroyed and Baker will never know what potential Market could have been created if the '943 patent had not been infringed. Baker will also never be able to calculate the "pull through" business it has lost not only in the Sunoco refineries, but also with other potential customers. When damages cannot be calculated and losses cannot be accurately ascertained, no adequate remedy at law exists. *See Broadcom*, 543 F.3d 683, 703-04 ("difficulty in estimating monetary damages reinforces the inadequacy of a remedy at law" and supports granting injunctive relief) (citations omitted); *Acumed*, 551 F.3d at 1328-29 (money damages are not an adequate remedy at law for infringement by a competitor who changes the conditions of the market).

VII. THE BALANCE OF HARDSHIPS AND PUBLIC INTERESTS FAVORS GRANTING BAKER'S INJUNCTION

29. The balance of hardships and public interests favor granting the requested injunctive relief. Baker has expended significant time and resources in researching, developing and obtaining a patent for the Baker Patented Method. Moreover, Nalco should not be allowed to capture Baker's market share through infringement of the Baker Patented Method. *Broadcom*, 543 F.3d at 704 (*citations omitted*) ("One who elects to build a business on a product found to infringe cannot be heard to complain if an injunction against continuing infringement destroys the business so elected."). Furthermore, it is in the public interest to enforce patents to encourage others to invent and utilize the patent system. *MGM Well Servs. v. Mega Lift Sys., LLC*, 505 F. Supp. 2d 359, 380 (S.D. Tex 2007) (citations omitted) ("public interest is best served by protecting patent rights and enforcing the applicable laws"). Indeed, the Federal Circuit has consistently held that "absent any other relevant concerns … the public is best served by enforcing patents that are likely valid and infringed." *See, e.g., Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1348 (Fed. Cir. 2008). Thus, the balance of hardships and public interests favor Baker, because Nalco should not be rewarded for copying the Baker Patented Method.

VIII. CONCLUSION

The facts set out above establish that Nalco's use of the Baker Patented Method to compete with Baker is causing irreparable injury to Baker and will result in the loss of market share and good will of Baker in the Baker Patented Method. This harm to Baker cannot be adequately compensated with money damages. Moreover, Baker is likely to succeed on the merits of its claims; the balance of hardships favors enjoining Nalco's further use of the Baker Patented Method; and granting such an injunction will serve the public interest and promote others to invent and utilize the patent system. Consequently, the requested Preliminary

Injunction should be granted, and Baker requests such other and further relief to which it is justly entitled.

Respectfully submitted this 21st day of August, 2009.

/s/ John H. Barr, Jr.

John H. Barr, Jr.
Attorney-in-Charge
State Bar No. 00783605
Glenn A. Ballard, Jr.
State Bar No. 01650200
Christopher A. Shield
State Bar No. 24046833
Andrew W. Zeve
State Bar No. 24042209

Bracewell & Giuliani LLP
711 Louisiana, Suite 2300
Houston, Texas 77002
(713) 223-2300 - Telephone
(713) 221-1212 - Facsimile

ATTORNEYS FOR PLAINTIFF BAKER HUGHES INCORPORATED and BAKER PETROLITE CORPORATION

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document has been forwarded to all counsel of record electronically pursuant to the Federal Rules of Civil Procedure on the 21st day of August, 2009.

/s/ John H. Barr, Jr.

John H. Barr, Jr.